RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/576 030
Source:	IFWP.
Date Processed by STIC:	4/27/06

ENTERED



IFWP

RAW SEQUENCE LISTING DATE: 04/27/2006
PATENT APPLICATION: US/10/576,030 TIME: 07:23:05

Input Set : A:\toya149.001apc.txt

4 <110> APPLICANT: Yamaquchi, Masanori

Output Set: N:\CRF4\04272006\J576030.raw

```
Kita, Yuichi
              Mori, Tetsuya
              Kanbe; Kenji
      R
              Tomoda, Akihiro
     9
              Takahashi, Atsushi
              Ichikawa, Wakako
     12 <120> TITLE OF INVENTION: METHOD FOR PRODUCING SCYLLO-INOSITOL
     14 <130> FILE REFERENCE: TOYA149.001APC
C--> 16 <140> CURRENT APPLICATION NUMBER: US/10/576,030
C--> 17 <141> CURRENT FILING DATE: 2006-04-13
     19 <150> PRIOR APPLICATION NUMBER: PCT/JP2004/015174
     20 <151> PRIOR FILING DATE: 2004-10-14
     22 <150> PRIOR APPLICATION NUMBER: JP2003-353490
     23 <151> PRIOR FILING DATE: 2003-10-14
     25 <150> PRIOR APPLICATION NUMBER: JP2003-353491
    26 <151> PRIOR FILING DATE: 2003-10-14
     28 <150> PRIOR APPLICATION NUMBER: JP2004-18128
W--> 29 <151> PRIOR FILING DATE: 2004-1-27
     31 <150> PRIOR APPLICATION NUMBER: JP2004-194088 *
W--> 32 <151> PRIOR FILING DATE: 2004-6-30
     34 <160> NUMBER OF SEQ ID NOS: 37
     36 <170> SOFTWARE: PatentIn version 3.1
     38 <210> SEQ ID NO: 1
     39 <211> LENGTH: 1041
     40 <212> TYPE: DNA
     41 <213> ORGANISM: Escherichia coli
     43 <220> FEATURE:
     44 <221> NAME/KEY: CDS
     45 <222> LOCATION: (1)..(1041)
     46 <223> OTHER INFORMATION:
W--> 48 <400> 1
                                                                               48
     49 atg agc gac aac atc cgt gtt ggg ttg att ggg tat ggt tat gcg agc
     50 Met Ser Asp Asn Ile Arg Val Gly Leu Ile Gly Tyr Gly Tyr Ala Ser
                                                                               96
     52 aaa acc ttc cat gcg ccc ctg att gcg ggc acg ccc ggg cag gaa ctg
     53 Lys Thr Phe His Ala Pro Leu Ile Ala Gly Thr Pro Gly Gln Glu Leu
    55 gcg gta atc tcc agc agt gat gaa aca aaa gta aaa gcc gac tgg cca
                                                                              144
     56 Ala Val Ile Ser Ser Ser Asp Glu Thr Lys Val Lys Ala Asp Trp Pro
                                    40
    58 acg gtt acg gtt gtc tct gag ccg aag cat ctg ttt aac gat ccc aac
                                                                              192
     59 Thr Val Thr Val Val Ser Glu Pro Lys His Leu Phe Asn Asp Pro Asn
```

Input Set : A:\toya149.00lapc.txt
Output Set: N:\CRF4\04272006\J576030.raw

60 50 55	60
61 ata gac ctg att gtc att cct aca ccc aac ga	t acc cat ttc ccg tta 240
62 Ile Asp Leu Ile Val Ile Pro Thr Pro Asn Asp	
63 65 70 75	80
64 gcc aaa gcg gcg ctt gag gcg ggt aaa cat gtg	g gtc gtt gat aaa ccc 288
65 Ala Lys Ala Ala Leu Glu Ala Gly Lys His Va	l Val Val Asp Lys Pro
66 85 90	95
67 ttt acc gtg aca ctg tca caa gcg cga gag ctg	g gat gcg ctg gca aaa 336
68 Phe Thr Val Thr Leu Ser Gln Ala Arg Glu Le	u Asp Ala Leu Ala Lys
69 100 105	110
70 agc ctg ggg cgt gtg ctg tct gta ttc cat aa	
71 Ser Leu Gly Arg Val Leu Ser Val Phe His Ass	
72 115 120	125
73 gat ttc ttg acg cta aaa ggt tta ctc gcg ga	
74 Asp Phe Leu Thr Leu Lys Gly Leu Leu Ala Gl	
75 130 135	140
76 gtt gct tac ttt gag tct cat ttt gac cgc tte	
77 Val Ala Tyr Phe Glu Ser His Phe Asp Arg Phe	
78 145 150 155	
79 gat cgt tgg cgt gaa cag ggc ggc cca ggc ag	
80 Asp Arg Trp Arg Glu Gln Gly Gly Pro Gly Se	
81 165 170	175
82 tta gca cca cat ctt ctt gat cag gcc att acg	
83 Leu Ala Pro His Leu Leu Asp Gln Ala Ile Th	_
84 180 185	190
85 gtc agc atg acg gta gat ttg gca cag tta cg	
86 Val Ser Met Thr Val Asp Leu Ala Gln Leu Arg	
87 195 200	205
88 acc gat tat ttc cac gcc atc ttg tcc tat cc	
89 Thr Asp Tyr Phe His Ala Ile Leu Ser Tyr Pro	220
90 210 215 91 tta cac ggt acc atg ctg gca gcc gct gag tc	
92 Leu His Gly Thr Met Leu Ala Ala Ala Glu Se:	
93 225 230 231	
94 cat gga tcc cga ggc agt tat gtg aaa tat gg	
95 His Gly Ser Arg Gly Ser Tyr Val Lys Tyr Gl	
96 245 250	255
97 gaa cgt ctg aaa aat ggc gag cgt cta ccg ca	
98 Glu Arg Leu Lys Asn Gly Glu Arg Leu Pro Gl	
99 260 265	270
100 gat atg cgt gat ggc gta ctt acc cgc gtg ga	
101 Asp Met Arg Asp Gly Val Leu Thr Arg Val G	
102 275 280	285
103 gaa gaa acg ctg ttg acg gtg cct ggg aat to	
104 Glu Glu Thr Leu Leu Thr Val Pro Gly Asn T	
105 290 295	300
106 gct att cgt gat gcg tta aat ggc gat ggt ga	aa aat ccg gtt ccg gca 960
107 Ala Ile Arg Asp Ala Leu Asn Gly Asp Gly G	
4 -	320

Input Set : A:\toya149.001apc.txt

Output Set: N:\CRF4\04272006\J576030.raw

109 agc cag gca atc cag gta atg gag ttg att gag ctg ggc atc gaa tcc 1008 110 Ser Gln Ala Ile Gln Val Met Glu Leu Ile Glu Leu Gly Ile Glu Ser 325 112 gcc aaa cat cgc gcg act ttg tgc ctt gca tga 1041 113 Ala Lys His Arg Ala Thr Leu Cys Leu Ala 340 117 <210> SEQ ID NO: 2 118 <211> LENGTH: 346 119 <212> TYPE: PRT 120 <213> ORGANISM: Escherichia coli 122 <400> SEQUENCE: 2 123 Met Ser Asp Asn Ile Arg Val Gly Leu Ile Gly Tyr Gly Tyr Ala Ser 124 1 125 Lys Thr Phe His Ala Pro Leu Ile Ala Gly Thr Pro Gly Gln Glu Leu 126 20 127 Ala Val Ile Ser Ser Ser Asp Glu Thr Lys Val Lys Ala Asp Trp Pro 40 129 Thr Val Thr Val Val Ser Glu Pro Lys His Leu Phe Asn Asp Pro Asn 131 Ile Asp Leu Ile Val Ile Pro Thr Pro Asn Asp Thr His Phe Pro Leu 70 133 Ala Lys Ala Ala Leu Glu Ala Gly Lys His Val Val Asp Lys Pro 85 135 Phe Thr Val Thr Leu Ser Gln Ala Arg Glu Leu Asp Ala Leu Ala Lys 100 105 137 Ser Leu Gly Arq Val Leu Ser Val Phe His Asn Arq Arq Trp Asp Ser 115 120 139 Asp Phe Leu Thr Leu Lys Gly Leu Leu Ala Glu Gly Val Leu Gly Glu 130 135 141 Val Ala Tyr Phe Glu Ser His Phe Asp Arg Phe Arg Pro Gln Val Arg 150 155 143 Asp Arg Trp Arg Glu Gln Gly Gly Pro Gly Ser Gly Ile Trp Tyr Asp 165 170 145 Leu Ala Pro His Leu Leu Asp Gln Ala Ile Thr Leu Phe Gly Leu Pro 180 185 147 Val Ser Met Thr Val Asp Leu Ala Gln Leu Arg Pro Gly Ala Gln Ser 195 200 205 149 Thr Asp Tyr Phe His Ala Ile Leu Ser Tyr Pro Gln Arg Arg Val Ile 210 215 151 Leu His Gly Thr Met Leu Ala Ala Glu Ser Ala Arg Tyr Ile Val 230 235 153 His Gly Ser Arg Gly Ser Tyr Val Lys Tyr Gly Leu Asp Pro Gln Glu 245 250 155 Glu Arg Leu Lys Asn Gly Glu Arg Leu Pro Gln Glu Asp Trp Gly Tyr 265 157 Asp Met Arg Asp Gly Val Leu Thr Arg Val Glu Gly Glu Glu Arg Val 280 159 Glu Glu Thr Leu Leu Thr Val Pro Gly Asn Tyr Pro Ala Tyr Tyr Ala 295 160

Input Set : A:\toya149.001apc.txt

Output Set: N:\CRF4\04272006\J576030.raw

			Ile	Arg	Asp	Ala		Asn	Gly	Asp	Gly		Asn	Pro	Val	Pro			
	162						310				_	315			0		320		
		Ser	Gln	Ala	Ile		Val	Met	Glu	Leu		Glu	Leu	Gly	Ile		Ser		
	164					325			_	_	330					335			
		Ala	Lys	His	_	Ala	Thr	Leu	Cys		Ala								
	166				340	_				345									
		<210																	
		<211				L70													
		<212				_				_									
						Agro	obact	eri	ım tı	ımera	acie	nce							
		<220				~~~													
		<221					/ 1 -	. 701											
		<222																	
7.7		<223		IHEK	INF	JRMA.	LION												
W>				+ ~ ~	~~+				++ a	ant.	200+	000	000	a++	aat	ata	aat		48
									ttc Phe										40
	182		ser	ser	АІа	TIII	ьуѕ	nys	PHE	Asp	10	Arg	Arg	116	Arg	15	Gly		
			at a	aac	aaa	aat	cac	aaa	gcc	tta		aac	aca	ata	cat		atc		96
									Ala										50
	185	Mec	Vai	Gry	20	Gry	GIII	Gry	AΙα	25	110	Ory	nια	Val	30	77-9	110		
		aca	acc	caa		gat	gac	cat	tac		cta	ata	add	gga		ct.t	t.c.c		144
			_		_	_		_	Tyr										
	188			35				5	40					45					
		tcc	gat		aca	cat	acc	acc	gcc	tca	qca	aca	ctq	ctc	qqc	att	qcq	-	192
									Ala										
	191		50					55					60		-				
	192	ccg	gag	cgc	tcc	tat	gcc	tcg	ttc	gag	gac	atg	gcg	gcg	act	gag	gcc	2	240
	193	Pro	Glu	Arg	Ser	Tyr	Ala	Ser	Phe	Glu	Asp	Met	Ala	Ala	Thr	Glu	Ala		
	194	65					70					75					80		
	195	ggc	cgg	gag	gat	ggc	atc	gag	gca	gtc	gcc	atc	gtc	acc	CCC	aac	cat	2	288
	196	Gly	Arg	Glu	Asp	Gly	Ile	Glu	Ala	Val	Ala	Ile	Val	Thr	Pro	Asn	His		
	197					85					90					95			
									gcc										336
		Leu	His	Phe		Pro	Ser	Lys	Ala		Leu	Glu	Ala	Gly		His	Val		
	200				100					105					110				
									gcg									-	384
		Ile	Cys	_	Lys	Pro	Val	Thr	Ala	Thr	Leu	GIu	GIu		Lys	Ala	ьeu		
	203			115					120			4.4		125					420
									gat									4	432
		Ата		шe	vai	Arg	Ala		Asp	ser	ьeu	Pne		Leu	Thr	HIS	ASII		
	206		130					135				~~~	140	- 	a+ a	~~+	~~~		400
									cgg									4	480
			THE	GTÅ	TAT	HIG	150	neu	Arg	GTII	MEC	155	GIU	met	116	AId	160		
		145	ac-	a++	~~~	32~		~~~	ast	at a	a	-	as s	tat	aca	cac		1	528
									cat His									•	220
	211	сту	мта	TIE	GIY	165	пеп	Arg	urs	vaı	170	ATG	GIU	TYL	лта	175	voh		
		taa	ctc	acc	C 2 2		atc	ra a	aaa	acc		aca	222	aat	מכת		taa	ı	576
	413	Lyy	cty	acc	yaa	909	gue	yaa	aaa	acc	990	gca	aaa	336	363	yaa	-99	•	.,0

Input Set : A:\toya149.001apc.txt
Output Set: N:\CRF4\04272006\J576030.raw

214 Trp Leu Thr Glu Ala Val Glu Lys Thr Gly Ala Lys Gly Ala Glu Trp 180	214	m	T 0	mb	~1	71-	77-7	~1	T	mbx	C1	. ה ה	T	C1	71-	C1	Two	
217 Arg Thr Arg Pro Ser Arg Ser Gly Ala Gly Gly Ala Ile Gly Asp Ile 195		Trp	Leu	Thr		AIA	vai	GIU	ьуs		GIY	Ala	гуѕ	GIY		Gru	пр	
19 9g	216	cgc	acc	gac	ccc	agc	cgc	tcc	ggt	gcg	ggc	ggc	gcc	atc	ggc	gat	atc	624
219 ggc act cac gcc ttc aac gct gct gct gct ttt gtg acg ggt gaa atc ccc 220 Gly Thr His Ala Phe Asn Ala Ala Ala Phe Val Thr Gly Glu Ile Pro 221 210 222 agc agt ctt tat gcg gat ctc acg tcg ttt gtg ccg ggc cgg cag ctg 223 Ser Ser Leu Tyr Ala Asp Leu Thr Ser Phe Val Pro Gly Arg Gln Leu 224 225 230 240 225 240 225 240 225 240 226 227 240 225 240 226 226 Asp Asp Ser Ala Asn Ile Leu Leu Arg Tyr Asp Ser Gly Ala Lys Gly 226 Asp Asp Ser Ala Asn Ile Leu Leu Arg Tyr Asp Ser Gly Ala Lys Gly 227 245 250 250 255 250 260 260 260 265 270 255 260 260 260 260 260 260 260 260 260 260	217	Arg	Thr	Asp	Pro	Ser	Arg	Ser	Gly	Ala	Gly	Gly	Ala	Ile	Gly	Asp	Ile	
220 Gly Thr His Ala Phe Asn Ala Ala Ala Phe Val Thr Gly Glu Ile Pro 221 210 222 agc agt ctt tat gcg gat ctc acg tcg ttt gtg ccg ggc cgg cag ctg 223 Ser Ser Leu Tyr Ala Asp Leu Thr Ser Phe Val Pro Gly Arg Gln Leu 224 225 235 gat gac agc gcc aat att ctt ttg cgt tac gac agt ggc gcc aag ggc 226 Asp Asp Ser Ala Asn Ile Leu Leu Arg Tyr Asp Ser Gly Ala Lys Gly 227 228 atg ctc tgg gca agc cag atc gcg gtc ggc aat gac agc gct cag 228 atg ctc tgg gca agc cag atc gcg gtc ggc aat gac agc gct tca 229 Met Leu Trp Ala Ser Gln Ile Ala Val Gly Asn Glu Asn Ala Leu Ser 230 260 270 231 ctc cgg gtc tat ggc gac aag ggc ggc ggt ggc gat tga tcc gg gtc gac aac gac gac gac gac gac agc gac ga	218	_		195			_		200		_	_		205				
220 Gly Thr His Ala Phe Asn Ala Ala Ala Phe Val Thr Gly Glu Ile Pro 221 210 222 agc agt ctt tat gcg gat ctc acg tcg ttt gtg ccg ggc cgg cag ctg 223 Ser Ser Leu Tyr Ala Asp Leu Thr Ser Phe Val Pro Gly Arg Gln Leu 224 225 235 gat gac agc gcc aat att ctt ttg cgt tac gac agt ggc gcc aag ggc 226 Asp Asp Ser Ala Asn Ile Leu Leu Arg Tyr Asp Ser Gly Ala Lys Gly 227 228 atg ctc tgg gca agc cag atc gcg gtc ggc aat gac agc gct cag 228 atg ctc tgg gca agc cag atc gcg gtc ggc aat gac agc gct tca 229 Met Leu Trp Ala Ser Gln Ile Ala Val Gly Asn Glu Asn Ala Leu Ser 230 260 270 231 ctc cgg gtc tat ggc gac aag ggc ggc ggt ggc gat tga tcc gg gtc gac aac gac gac gac gac gac agc gac ga	219	qqc	act	cac	qcc	ttc	aac	qct	qct	qcc	ttt	gtg	acg	ggt	gaa	atc	CCC	672
221 222 agc agt ctt tat gcg gat ctc acg tcg ttt gccg ggc cgg cag ctg 720 222 agc agt ctt tat gcg gat ctc acg tcg ttt gccg ggc cgg cag ctg 720 223 Ser Ser Leu Tyr Ala Asp Leu Thr Ser Phe Val Pro Gly Arg Gln Leu 224 225 230 230 235 240 225 gat gac agc gcc aat att ctt ttg cgt tac gac agt ggc gcc aag ggc 768 226 Asp Asp Ser Ala Asn Ile Leu Leu Arg Tyr Asp Ser Gly Ala Lys Gly 227 245 250 255 228 atg ctc tgg gca agc cag atc gcg gtc ggc aat gaa aat gcg ctg tca 226 agc gcd agc gcd agc gcg agc ggg ggc atg gaa aat gcg ctg tca 230 260 260 265 270 265 231 ctc cgg gtc tat ggc gac aag ggc ggg ctt gaa tgg cac cac gg gtg 864 232 Leu Arg Val Tyr Gly Asp Lys Gly Gly Leu Glu Trp His His Arg Val 233 275 280 234 ccg gac gag ctg tgg ttc acg ccc tat ggc gag ccg aaq cgg ctg att 232 Pro Asp Glu Leu Trp Phe Thr Pro Tyr Gly Glu Pro Lys Arg Leu Ile 236 Pro Asp Glu Leu Trp Phe Thr Pro Tyr Gly Glu Pro Lys Arg Leu Ile 236 290 310 310 315 320 320 320 320 320 320 320 320 320 320					_			_	_	_			_		_			
223 Ser Ser Leu Tyr Ala Asp Leu Thr Ser Phe Val Pro Gly Arg Gln Leu 224 225 235 236 ac ag gc cast att ctt ttg cgt tac gac agt ggc gcc aag ggc 768 226 Asp Asp Ser Ala Asn Ile Leu Leu Arg Tyr Asp Ser Gly Ala Lys Gly 270 255 255 252 250 255 252 262 262 Asp Met Leu Trp Ala Ser Gln Ile Ala Val Gly Asn Glu Asn Ala Leu Ser 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 270 270 270 270 270 270 270 270 270		-												•				
223 Ser Ser Leu Tyr Ala Asp Leu Thr Ser Phe Val Pro Gly Arg Gln Leu 224 225 235 236 ac ag gc cast att ctt ttg cgt tac gac agt ggc gcc aag ggc 768 226 Asp Asp Ser Ala Asn Ile Leu Leu Arg Tyr Asp Ser Gly Ala Lys Gly 270 255 255 252 250 255 252 262 262 Asp Met Leu Trp Ala Ser Gln Ile Ala Val Gly Asn Glu Asn Ala Leu Ser 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 265 270 270 270 270 270 270 270 270 270 270	222	agc	aqt	ctt	tat	qcq	gat	ctc	acq	tcq	ttt	qtq	ccq	qqc	cqg	cag	ctg	720
224 225																		
226					•		-							-	-			
226	225	gat	qac	aqc	qcc	aat	att	ctt	ttq	cqt	tac	qac	aqt	qqc	qcc	aaq	qqc	768
225		_	_	_	-				_	_		_	_					
228 atg ctc tgg gca agc cag atc gcg gtc ggc aat gaa aat gcg ctg tca 229 Met Leu Trp Ala Ser Gln Ile Ala Val Gly Asn Glu Asn Ala Leu Ser 230											_	- 1		-		_	-	
229 Met Leu Trp Ala Ser Gln Ile Ala Val Gly Asn Glu Asn Ala Leu Ser 260		atq	ctc	taa	qca	agc	caq	atc	aca	atc	aac	aat	gaa	aat	aca	cta	tca	816
230		_			_	_	_			_			_		-	-		
231 ctc cgg gtc tat ggc gac aag ggc ggg ctt gaa tgg cac cac cgg gtg 864 232 Leu Arg Val Tyr Gly Asp Lys Gly Gly Leu Glu Trp His His Arg Val 233 275 280 280 285 244 ccg gac gag ctg tgg ttc acg ccc tat ggc gag ccg aag cgg ctg att 912 235 Pro Asp Glu Leu Trp Phe Thr Pro Tyr Gly Glu Pro Lys Arg Leu Ile 236 290 295 300 237 acc cgc aac ggt ggg ggc gg ggt gcc gct gca aac cgt gtc agt cgt 496 238 Thr Arg Asn Gly Ala Gly Ala Gly Ala Ala Ala Ala Asn Arg Val Ser Arg 239 305 310 315 320 240 gtg cca tcc ggg cac ccg gag gga tat ctc gag ggt ttt gcg acg att 1008 241 Val Pro Ser Gly His Pro Glu Gly Tyr Leu Glu Gly Phe Ala Thr Ile 242 325 330 335 243 tac cgc gaa gcc gca gac gca atc atc gca aag agg gag gaa aca 244 Tyr Arg Glu Ala Ala Asp Ala Ile Ile Ala Lys Arg Glu Gly Glu Thr 245 340 340 345 5 360 360 360 246 gcc gcc ggg gag gtg att tac ccc ggc atg gag gac gac acc 360 360 360 360 247 Ala Ala Ala Gly Glu Val Ile Tyr Pro Gly Met Glu Asp Gly Leu Ala Gly 248 355 360 360 360 360 360 360 360 252 gtc gga atc gac atc tag 252 gtc ggg atc gac atc tag 253 gtc ggg atc gac atc tag 254 385 257 <210 > SEQ ID NO: 4 258 <211 > LENGTH: 389 259 <212 > TYPE: PRT 260 <213 > ORGANISM: Agrobacterium tumefacience 262 <400 > SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 1 5 5 10											- 1							
232 Leu Arg Val Tyr Gly Asp Lys Gly Gly Leu Glu Trp His His Arg Val 275 280 285		ctc	caa	atc	tat	aac	gac	aaq	aac	aaa	ctt	qaa	taa	cac	cac	caa	ata	864
233																		
234 ccg gac gac gag ctg tgg ttc acg ccc tat ggc gag ccg aag cgg ctg att 235 Pro Asp Glu Leu Trp Phe Thr Pro Tyr Gly Glu Pro Lys Arg Leu Ile 236					4	-		4	_	-			-					
235 Pro Asp Glu Leu Trp Phe Thr Pro Tyr Gly Glu Pro Lys Arg Leu Ile 236		ccq	qac		ctq	tqq	ttc	acq	CCC	tat	qqc	qaq	ccq	aaq	cqq	ctq	att	912
236																		
238 Thr Arg Asn Gly Ala Gly Ala Gly Ala Ala Ala Ala Asn Arg Val Ser Arg 239 305 310 315 320 240 gtg cca tcc ggg cac ccg gag gga tat ctc gag ggt ttt gcg acg att 1008 241 Val Pro Ser Gly His Pro Glu Gly Tyr Leu Glu Gly Phe Ala Thr Ile 242 325 330 335 330 335 243 tac cgc gaa gcc gca gac gca atc atc gca aag agg gag gga aca aca 1056 244 Tyr Arg Glu Ala Ala Asp Ala Ile Ile Ala Lys Arg Glu Gly Glu Thr 245 340 345 350 246 gcc gcc ggg gag gtg att tac ccc ggc atg gag gac ggc ctt gcg ggt 1104 247 Ala Ala Gly Glu Val Ile Tyr Pro Gly Met Glu Asp Gly Leu Ala Gly 248 355 360 365 249 ctc gca ttc atc gat gcg gcc gtt cgc tcc agc cag acc tcg acc tgg 1152 250 Leu Ala Phe Ile Asp Ala Ala Val Arg Ser Ser Gln Thr Ser Thr Trp 251 370 375 380 252 gtc ggg atc gac atc tag 375 380 253 Val Gly Ile Asp Ile 253 Val Gly Ile Asp Ile 254 385 257 <210> SEQ ID NO: 4 258 <211> LENGTH: 389 259 <212> TYPE: PRT 260 <213> ORGANISM: Agrobacterium tumefacience 262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15			_			_				•	-			-				
238 Thr Arg Asn Gly Ala Gly Ala Gly Ala Ala Ala Ala Asn Arg Val Ser Arg 239 305	237	acc	cqc	aac	qqt	qcq	qqc	qcq	qqt	qcc	qct	qca	aac	cqt	qtc	aqt	cgt	960
239 305 310 315 320 240 gtg cca tcc ggg cac ccg gag gga tat ctc gag ggt ttt gcg acg att 1008 241 Val Pro Ser Gly His Pro Glu Gly Tyr Leu Glu Gly Phe Ala Thr Ile 325 330 335 243 tac cgc gaa gcc gca gac gac atc atc gca aag agg gag gag gaa aca 1056 244 Tyr Arg Glu Ala Ala Asp Ala Ile Ile Ala Lys Arg Glu Gly Glu Thr 345 350 246 gcc gcc ggg gag gtg att tac ccc ggc atg gag gac ggc ctt gcg ggt 1104 247 Ala Ala Gly Glu Val Ile Tyr Pro Gly Met Glu Asp Gly Leu Ala Gly 248 355 360 365 249 ctc gca ttc atc gat gcg gcc gtt cgc tcc agc cag acc tcg acc tgg 1152 250 Leu Ala Phe Ile Asp Ala Ala Val Arg Ser Ser Gln Thr Ser Thr Trp 251 370 375 380 252 gtc ggg atc gac atc tag 385 253 Val Gly Ile Asp Ile 254 385 257 <210> SEQ ID NO: 4 258 <211> LENGTH: 389 259 <212> TYPE: PRT 260 <213> ORGANISM: Agrobacterium tumefacience 262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1																		
241 Val Pro Ser Gly His Pro Glu Gly Tyr Leu Glu Gly Phe Ala Thr Ile 242					-				-					_				
241 Val Pro Ser Gly His Pro Glu Gly Tyr Leu Glu Gly Phe Ala Thr Ile 242	240	qtq	cca	tcc	qqq	cac	ccq	qaq	qqa	tat	ctc	qaq	ggt	ttt	qcq	acq	att	1008
242																		
244 Tyr Arg Glu Ala Ala Asp Ala Ile Ile Ala Lys Arg Glu Gly Glu Thr 245					-				-	•			-					
244 Tyr Arg Glu Ala Ala Asp Ala Ile Ile Ala Lys Arg Glu Gly Glu Thr 245	243	tac	cqc	qaa	qcc	qca	qac	qca	atc	atc	qca	aaq	aqq	qaq	qqa	qaa	aca	1056
245			-	_	-		_	_			_	_						
247 Ala Ala Gly Glu Val Ile Tyr Pro Gly Met Glu Asp Gly Leu Ala Gly 248		-	_				-					•	~		_			
247 Ala Ala Gly Glu Val Ile Tyr Pro Gly Met Glu Asp Gly Leu Ala Gly 248	246	gcc	gcc	ggg	gag	gtg	att	tac	ccc	ggc	atg	gag	gac	ggc	ctt	gcg	ggt	1104
249 ctc gca ttc atc gat gcg gcc gtt cgc tcc agc cag acc tcg acc tgg 250 Leu Ala Phe Ile Asp Ala Ala Val Arg Ser Ser Gln Thr Ser Thr Trp 251 370 375 380 252 gtc ggg atc gac atc tag 1170 253 Val Gly Ile Asp Ile 254 385 257 <210> SEQ ID NO: 4 258 <211> LENGTH: 389 259 <212> TYPE: PRT 260 <213> ORGANISM: Agrobacterium tumefacience 262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15																		
250 Leu Ala Phe Ile Asp Ala Ala Val Arg Ser Ser Gln Thr Ser Thr Trp 251	248			355				_	360	_			_	365			_	
250 Leu Ala Phe Ile Asp Ala Ala Val Arg Ser Ser Gln Thr Ser Thr Trp 251	249	ctc	gca	ttc	atc	gat	gcg	gcc	gtt	cgc	tcc	agc	cag	acc	tcg	acc	tgg	1152
252 gtc ggg atc gac atc tag 253 Val Gly Ile Asp Ile 254 385 257 <210 > SEQ ID NO: 4 258 <211 > LENGTH: 389 259 <212 > TYPE: PRT 260 <213 > ORGANISM: Agrobacterium tumefacience 262 <400 > SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15	250	Leu	Ala	Phe	Ile	Asp	Ala	Ala	Val	Arg	Ser	Ser	Gln	Thr	Ser	Thr	Trp	
253 Val Gly Ile Asp Ile 254 385 257 <210> SEQ ID NO: 4 258 <211> LENGTH: 389 259 <212> TYPE: PRT 260 <213> ORGANISM: Agrobacterium tumefacience 262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15						_				_							_	
253 Val Gly Ile Asp Ile 254 385 257 <210> SEQ ID NO: 4 258 <211> LENGTH: 389 259 <212> TYPE: PRT 260 <213> ORGANISM: Agrobacterium tumefacience 262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15	252	gtc	ggg	atc	gac	atc	tag											1170
254 385 257 <210> SEQ ID NO: 4 258 <211> LENGTH: 389 259 <212> TYPE: PRT 260 <213> ORGANISM: Agrobacterium tumefacience 262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15		_			-		_											
258 <211> LENGTH: 389 259 <212> TYPE: PRT 260 <213> ORGANISM: Agrobacterium tumefacience 262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15			_		_													
259 <212> TYPE: PRT 260 <213> ORGANISM: Agrobacterium tumefacience 262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15	257																	
260 <213> ORGANISM: Agrobacterium tumefacience 262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15																		
262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15	259	<212	2> T	PE:	PRT													
262 <400> SEQUENCE: 4 263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15						Agro	bact	ceri	ım tı	ımefa	acie	nce						
263 Met Ser Ser Ala Thr Lys Lys Phe Asp Ser Arg Arg Ile Arg Leu Gly 264 1 5 10 15						_												
264 1 5 10 15							Lys	Lys	Phe	Asp	Ser	Arg	Arg	Ile	Arg	Leu	Gly	
265 Met Val Gly Gly Gln Gly Ala Phe Ile Gly Ala Val His Arg Ile						5	-	-		_		_	_		_		-	
	265	Met	Val	Gly	Gly	Gly	Gln	Gly	Ala	Phe	Ile	Gly	Ala	Val	His	Arg	Ile	

Input Set : A:\toya149.001apc.txt

Output Set: N:\CRF4\04272006\J576030.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:29; N Pos. 9,15,18,27
Seq#:30; N Pos. 15,18,24
Seq#:32; N Pos. 7,17

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:15,16,17,18,19,20,21,22,23,24,25,26,29,30,31,32,33,34,35,36,37

VERIFICATION SUMMARYDATE: 04/27/2006PATENT APPLICATION: US/10/576,030TIME: 07:23:06

Input Set : A:\toya149.001apc.txt

~ · ·

Output Set: N:\CRF4\04272006\J576030.raw

L:16 M:270 C: Current Application Number differs, Replaced Application Number L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:29 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD L:32 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD L:48 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:46 L:179 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3,Line#:177 L:325 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:5,Line#:323 L:471 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:7,Line#:469 L:607 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:9,Line#:605 L:753 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:751 L:899 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:13,Line#:897 L:1176 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:27,Line#:1174 L:1332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0 L:1355 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0